The Monterey Protocols

A novella for non-proliferation

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2qx

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Dedication

To Ms. Coker and others.

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first draft backup:

```
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```

Prologue: Snow globe

ADDISON COUNTY VERMONT—NOAA had issued Extreme Cold Weather advisories across New England for Friday evening through to Saturday; the perfect weather to keep all the flatlanders away from your snow globe sanctuary.

Every Friday in winter, for the last four years, you've thrown your split-board in your rusty 2002 Subaru Legacy your mother bought certified used when you were three years old. You headed out for the snow bowl, where you usually stayed 'til the last run at 9PM.

You could have gone to UVM on a Green and Gold scholarship, but you asked your mom to stop at a ski mountain on the way home from the visit to the big city. Between your grades and a single parent income, you got offered a second full ride scholarship in exchange for being a dash of local flavor at the rich kid school. The modest slopes and three chair lifts were the key value proposition of the private college.

Tonight, there was only a small gang of snowboarders at the shelter and a few rogue skiers whipping about. With the harder snow from last week's melt, you opted for skis. You grabbed your poles from the trunk. A face-warmer and goggles were absolutely necessary, leaving nothing exposed to the cold.

It was a string of empty chairs all the way up the mountain.

As you scooted forward for your first ride up, a skier turned at speed and stopped directly on the line next to you, right as you bent your knees for the chair to pick you up. You glanced at the lift operator, as if to say "did you see that", but Brett was looking at his phone again.

Looking down as the ground dropped away, the fantastic fashion

spectacle of your fellow traveler hit you.

It was as if someone had been transported from Mont Blanc forty years ago into present-day Vermont. Long, narrow, heavy, laminated, fiberglass skis. Massive chunky boots. A mostly neon one piece jumpsuit with bright colorful patchwork. It was so very mid-80s, but also new old stock. The attire was mint, unfaded, unsoiled equipment without a scratch. It looked like someone spent several thousand dollars on ski gear in the poshest towns of Switzerland, money laundering in the go-go eighties, then put the entire getup in a closet for forty years.

“Jody? Is that Jody?”

Oh gosh, this loon knows you, there goes your sanctuary time.

“Yes?”, you stammer.

“I recognize that silicone piercing. It’s Carl, Professor Carl Sable. You took my intro to political science course a few semesters ago.”, he said.

“Hah! That’s some retro outfit you got there.” you say, as you pull down your face warmer, “I was just thinking about you on the drive here. Public Radio is telling the whole country that all your crazy predictions are coming true. The United States is planning to invade Greenland, then perhaps Canada and Russia …”

“—all because of The Mercator Projection!” you both shout in unison with a belly laugh.

“Yes, it’s difficult to convince someone of the true magnitude of things when they are perpetually shown a world view that systematically distorts reality.”, the professor said. “Hopefully he doesn’t invade Russia though.”

“I suppose it’s better to have hostile attention directed at the ice covered barren wastelands rather than countries where people actually live.”, you offer.

“Always looking at the whole picture. Jody the Panoptic”, the

professor quipped.

“I guess so. Lots of time to think on the top of the world”, you say.

The banter paused as a stiff wind made it difficult to hear.

“You are graduating this year, RIGHT? ANY PLANS LINED UP?” Professor Sable yelled.

You shout: “WELP, I had HOPED to get a job in WASHINGTON, but with the way things are turning out, THAT’S LOOKING LIKE A BUST! There’s a GLUT of HIGHLY-QUALIFIED people and NO JOBS! I’ve applied to the graduate program HERE. So I’ll probably STICK AROUND for another two years.”

“You’re in a STEM TRACK RIGHT!?!” Carl yelled into silence as the wind stopped abruptly, like everyone in a bustling cafe hushing in unison to hear your answer.

“Yeah, physics major, math minor. My older brother was a video game developer. He taught me how to code when I was ten. I just wanted to be able to make cooler games with him.” you explain, “I didn’t realize that the senior job fair would be mostly defense contractors or the Department of Energy for me.”

“Oh. So you’re somehow allergic to money?” the professor jabbed.

“I don’t want to make weapons.” you shoot back.

“Then why not make video games with your brother?” Carl asked.

You pause, take a deep breath and in a rapid monotonous tone say, “My brother broke his leg skiing at Killington, visiting for Christmas in 2019. He went through multiple surgeries and a lot of pain killers. Our mom tried to warn him. He had been working for a big game studio in Portland, but they shutdown in-person for covid. Then he got laid off the next January. He O.D.ed right before Christmas in 2022—fentanyl.”

Professor Sable raised his matching mittens abruptly, forgetting there were poles attached to his wrist as he said, “I’m so sorry. I remember now. You wrote that paper on the legal changes to requirements for criminal prosecution at the DEA.”

“I’m so very sorry for your loss. It’s such a terrible epidemic”, he added.

You both tip your skis up as the ramp rises to meet you. As you both slide off the chair, you cut away. You turn your back and shout over your shoulder:

“Every year, one hundred thousand more …”,

… *dead Americans.* you say in your head, as you speed away, over The Long Trail and down the back slope riding the edge of darkness.

You consciously pull the end of the caustic sentence so the hundred thousand needles might go deeper if Professor Carl finishes the thought in his own voice.

…

You had spent the winter of your freshman year memorizing precision topography of the entire mountain using data downloaded from Vermont’s public geographic information database. You misused some computer lab resources and the expensive plotter at school to print a massive custom shaded topographic map with more detail of the mountain than any available map. It was the exact width of your dorm wall. You even sold a couple digital copies of the pdf to friends.

By your sophomore year, you had built virtual computer models to plan fringe out-of-bounds lines where you could cut out of designated areas for fresh untouched powder. However, a “run in” with a tree and a concussion alone in the woods ended those adventures. You only ride within the lines now.

You stop on the edge to look at a giant hollowed out Eastern Hemlock with an enormous pile of telltale porcupine droppings

frozen in a perfect meter high cone at the bottom of a solitary dying tree.

That's a way to be Jody; what a piece of work.

Someone tries to have a simple conversation and you turn your back to offer them a hundred thousand barbed jabs in return. What a nasty asymmetric defense. What a lonely creature, in a lonely place. Jody the panoptic porcupine, barbs out, alone with a pile of excrement as a warning to all who would come near.

A haunting chill sinks over you. You feel deep regret at your turn of phrase and swift departure. Your flash of rage toward the world turns to guilt. You head down the backside looking for the electric neon Sable.

You spot him shuffling his antique skis toward the back lift. You go in at full speed, stopping on the line as the chair picks you both up. You smile and wave with all your charm as a lady operator shoots you a stern look.

"Have you ever been to Monterey, Jody?" Carl picks up.

"California? I've never been on a plane professor." you say.

"Well, as you are probably aware, the college maintains a satellite campus there…"

"Maintained, past-tense. They're shutting it down." you interrupt.

"—right, but it's not shut down yet." he continues, "and they've had a number of students drop out because their visas were canceled, or for sundry other reasons with grants and whatnot."

"They need to maintain a minimum number of butts in seats for the next two years for accreditation. Since you say you don't like bombs, I was thinking … well they have collected the leading researchers and thinkers in the field of nonproliferation …",

"Nukes are very much bombs professor." you say,

“No, not just nukes. It’s more complex; their work is much broader, focused on preventing the use of weapons of mass destruction more generally. If you want to apply your worldview and talents defensively against war, and against a whole array of weapons, they are the experts.” He pauses.

“Do they have a social media expert?” you asked.

“HA! No. Yes… free speech is a tricky thing” he said.

The clutch of rowdy snowboarders set up camp on the nape of a ridge line on the Long Trail. They were trying to scream across Lake Champlain to someone in New York through the inversion layer of ultra-cold compressed air. The direction of wind wasn’t in their favor.

“The cold doesn’t bother them?”, Sable asks.

“I think they brought a flask for warmth”, you say.

“Ah ha. Listen, I have it on authority, if you apply, you’ll get in. I know you’re a Vermonter on scholarship, but there is a little money in a grant for the summer. There’s about five grand when the job is complete and I can get you a free place to live, right by the beach,” he promises.

“There is a research project a few years old that a group is looking to have updated. They want someone out there this summer, by the first week of June, to update the data and re-run a simulation that’s already been done. It’s super easy, just updating datasets and hitting run.”

“Do you surf Jody?” Carl asks, as he ends his pitch.

“What’s this simulation about?” you ask.

“Have you ever heard of star wars?” he returns.

“Like Obi-Wan Kenobi?” you say.

“No no, think more like space satellites, like GoldenEye.” he says.

“I broke the joystick on my brother’s old controller when I was four and he never let me touch his Nintendo 64 again”, you say, “so I never really played it.”

“I’ve never seen the puzzle in a first person shooter”, you add.

“Ahhh—well listen” he stammered as the top of the lift approached. “Shoot me an email when you get accepted and I can send you the contact info for the apartment and the research project.”

As you disembarked from the lift, you nearly fell backward as all control on one ski was lost. You look down to see your right ski has structurally failed; it delaminated right at the heel of the binding. The holes for the bindings pulled out at the same time.

After six years, thousands of runs, back-country trails, rocks, trees, jumps, flips and turns, your split board is finally Split City.

“Looks like it’s time for some new skis,” Carl says.

Not wanting to go down on one ski, you unclip the bindings and try to join the two halves back into a board as best you can, remounting the bindings across both halves.

“That’s a neat trick.” Professor Carl says,

“Yeah, it was kind of expensive. It was a sixteenth birthday present. Cost more than my car at the time. I’m probably not going to get a new one this season,” you explain.

“Maybe a new board in Monterey then. It was good to see you, but it’s cold out here. Shoot me an email”.

As he trailed away shouting, “And Jody… you’ll never see all the distortions from a single point.”, and with that the neon sable fishered it’s way down the hill to a speck.

Gone was your evening, ski season and sanctuary time.

You limp your board down the mountain on one and a half edges, snow packing between the layers, swelling as it goes. You

knocked out what ice you could and threw it across the back seat of your old Subaru.

…

As you wind down the mountain on the back road, you slow down for what looks like a black bear walking along the side of the road on a flat straight.

You stop the car.

Well, that is not right. It's the dead of January.

All the bears have to be denned up by now. What the hell is this creature?

It turns to cross the road, dragging the end of thirty foot sapling above it's head, like a giant rodent flag bearer without a petard.

Jeez-um CROW, its got to be the biggest beaver in Vermont. A fifty pound tank. *HOLLLY CRAP.*

You look downhill and notice the massive area has been inundated under a sheet of snow covered ice. You'd never noticed that in four years.

So beavers are normally in for the season when you're driving by. Perhaps the record drought put this guy behind on food for the winter.

The enormous magnificent beast stops on the centerline. It stares directly at you. It lifts its body to preen some gravel from its chest and belly with its forearms, slowly, almost as if to say, "Yeah, you like that?"

In its glistening pelt, you catch a shimmer of the super-insulating orbicular bullion that made John Jacob Astor break so bad—a store of wealth and power for survival that could be extremely tempting to commodify, at the most terrible irreparable cost to America.

What a beautiful creature. What a landscape.

Back to your 2026 milieu, you look down to see the oil light has come on again.

You put your blinkers on, kill the ignition, pop the hood, then pull the brake as you reach behind the passenger seat to grab a fresh quart of oil a funnel & rag in one hand.

Normally, you don't need a funnel, but with the cold temperature this could turn into a fluid dynamics comedy. The oil starts to come out of the quart as one giant ball of molasses. You try to stop it immediately as it comes out, but now the ball of oil has formed a column of tacky coffee toffee sucking itself out of the bottle by its own viscosity. Oh lord, make it stop.

As you struggle to contain your imminent ecological crimes against the mountain beaver habitat, two cars speed down the road and swerve around you. A Benz and a Beamer, red and blue, New Jersey and Massachusets, both with campus parking stickers. Freshmen probably. They're done yelling and snowboarding too apparently.

They each clip the whimsy top of the beaver's tree as they swerve back into the right lane. The ancient rodent jerks, then bolts, leaving the tail of his trophy blocking half the road.

You look back down under the hood, you see the slow-motion oil confectionary disaster has mostly been averted by the funnel and your inattention. You put the quart bottle back in the car and throw the beaver his dinner as you wait for the rest of the molasses to get through the funnel.

That was a close one.

You stare at the yellow "05 26" sticker in the windshield. Last May was the only time Tyler's grandpa let it pass inspection without a hassle. Right before his garage closed in August, that was last time anyone would ever work on this car.

You don't really need a car; you can take the bus or train to visit home, which you've been doing anyhow.

Given this Legacy's mass and current stored gravitational potential energy at an elevation of approximately three hundred meters above sea level, if it didn't start again, does a pathway exist to pilot it into one of Vermont's many privately held steel reserve stockpiles without calling a tow truck?

… wait wait wait, go back … this bear beaver story still doesn't make sense.

How in the wintry hell does the beaver get back under the ice? It's negative ten degrees. The ice must be six inches thick now. Its den is clearly visible fifty yards out, with an entire underworld food storage system protected by a dome of ice armor.

How is the beaver going to get under the ice dome to get home to the den? That's an interesting puzzle.

You close the hood of the Subaru, and you hear faint muffled craunching. You walk forward ten yards and peer over the edge of the road. You see the beaver has pulled its tree into a large (five foot diameter) corrugated pipe culvert.

The residual heat from the ground must be keeping the water in the buried pipe from freezing, for the moment. That's the entrance, and it swims to the den from there; a culvert to the underworld. It will probably still freeze hard tonight if it stays as cold as they're saying. That might be its last fresh meal of the winter.

But if the beaver's portal to The Upside Down is an under-the-road wildlife passage, accessible from both sides of the road, we're left with one last clichéd puzzle to solve.

You do an about-face and walk to the downstream side of the road to see the pipe outlet has been submerged by flooding. There's thick solid ice up to and covering the crown. The beaver couldn't enter the portal that way, and that is *why* the beaver crossed the… you know. *Ba dum 'tis.*

You're so funny Jody.

A narrow sliver of a waxing crescent moon illuminates the alien landscape beyond. There's probably thirty acres, all now protected by ice. The den exterior is rock hard too. Along the edges, a ring of century old hemlocks blacken the perimeter providing aerial cover and habitat. It looks like the stands of deciduous trees are harvested in phases.

You step one foot out onto the ice. Not a peep pop or tong. It seems thick. There's a whole world down there, with food in storage for a growing family. It's a home for a host of other creatures in suspended animation. It was a secure place built and protected by one simple rule: listen for water flowing down hill and stop it—with a set of protocols and procedures all derived from that one simple rule.

That's the way to be Jody. Certainly beats an old porc's mound of crap.

Back in the car, you turn the key. The Legacy roars back with no oil light.

You release the parking brake and feather the clutch to get enough momentum to escape the local minimum of the beaver's domain.

You wonder if you can take a train all the way to Monterey.

A computer simulation. More free school; free housing. Five grand ain't much, but what's the worst that could possibly happen?

You turn the radio on to hear "threatened trade sanctions in retaliation over Greenland in Davos …" *and that's a NOPE.*

You hit #4 to see if you can pick up Montreal off the ionosphere.

Et "*vous écoutes* [a bunch of static]" off a bit of a ionic reflection, but it's not enough.

You hit #5 for "Dirt" radio, and catch a singer-songwriter on her bridge:

Hold your friends, forgive the night

Die to love and live your life …

Ah *dirt radio in a clutch*, you think, as you sled that old Legacy closer toward a new resting place somewhere in the valley below.

Sunday: EMPART

There were indeed trains that went most of the way to Monterey California.

You took an Ethan Allen from Rutland toward Castleton. You traded that in for a Lake Shore Limited in Schenectady and you were off.

You could have never imagined the beauty and richness of America.

You saw a country so very different from Vermont–good and bad.

You passed boring and battered mill towns and huge industrial wastelands. You saw food growing as far as the eye could see. You saw the equipment to process food and energy on an industrial scale for the first time.

There was a tremendous bustle of people compared to your little state. It felt exhilarating to see so many people. And it felt good to see that America was still a thriving engine of diversity.

You realized we have so much wealth with so many different people all living and working together.

You had never been a sucker–you knew we had a lot, but you hadn't seen it yourself.

For your Vermont provisions, you got to shop from your grandmother's store. You took with you one gallon maple syrup, six pints jam, four pints apple butter, two pints honey. For pickles, you took two dill, two bread and butter and one pint cowboy candy. You knew America didn't have what your grandma had.

You grabbed your brother's Nintendo and his favorite N64 game. Your mom loaded you with bottles of sunscreen. Most of your attire wasn't going to fly in California anyway, so you planned to hit the second hand store with the money from scrapping your old Subaru Legacy.

In Chicago, you caught a California Zephyr toward the incredible majesty of The Rockies that you had dreamed of descending with your split board. Deserts and grasslands; great forests and rivers.

America was huge.

Sacramento to San Jose, then a bus from the airport to Monterey.

Professor Carl had put you in touch with the lead researcher Kristof, over Telegram. You were given the address of a luxury building that was, indeed, directly on the beach. You picked up a key from the doorman and found an ancient looking long board waiting for you on the coffee table with a typed note:

```
Hello Jody,

Had this lying around. I thought you might use
it. Wear sunglasses to protect those special
"pan"oculars.

                - Carl ;)
```

On the counter were a box of manuals, a usb stick, a fingerprint key fob, and a sophisticated looking mechanical key on a lanyard.

There was a short page of instructions to access the institute basement computer lab in room B005, which would be your office for the summer. As well as instructions for using the usb and key to access a remote server already running the simulation.

The grant included a provision for food that would be stocked for you. It took you a couple minutes looking for a refrigerator before you opened one of the full length cabinets to reveal what

looked like the take away wall at the coop you could never afford to shop at. There was no way you'd eat this much food, but you could select what would be stocked in the app.

The whole Institute was closed for the summer, but you accessed your lab from a basement side door with the key, so that didn't matter to you. The hallway had a large locked door on the left with an illuminated [5] above it, which was a little confusing. But Kristof directed you back to a computer lab you passed with an non-illuminated B005 sign outside.

The computer setup was fairly simple. You had a dumb linux computer. You ran a script from the usb, together with the fob, to connect to your computing cluster at `empart-blue.us-chi-hiput-1.clouds`.

For two months, you ran a system called EMPART. It was fairly straightforward to explain it by walking through the letters.

An Electro Magnetic Pulse (EMP) is a wave of magnetism, like from a toy magnet or motor magnet, but much stronger.

Similar to water waves, there are different sizes. There are small ones that lap the edge of a lake, and waves that lap an ocean. There are tsunamis and walls of flash boiling water from meteorite impacts. But unlike water, strong magnet waves really only hurt electronics. (They pass through plants and animals without harm.)

In electronics, however, the waves induce current, which causes extreme voltages and catastrophic failure when the magnetic field hits. That's an EMP.

EMPs can be created in many ways. The system you were looking at was only concerned with major EMPs caused by nuclear reactions in the upper atmosphere. A payload on a satellite that could strike with little or no warning.

Next, the Analysis (A), the EMPART system was designed to continuously evaluate both the human and financial cost of one of these EMPs going off. The analysis calculated how many

people would die from the event and how much money would be lost in things destroyed. Those cost numbers were updated every few seconds and shown live in a table.

There were about a dozen of these satellites “of interest” that were mostly all Russian in origin, but China had a few suspects up there as well.

Kosmos 2553 had been one of the key satellites of interest. It was launched right before the invasion of Ukraine in 2022. However, on November 5th 2024 it began an orbit shift to a higher elevation. On January 31 2025, it appeared to suffer a catastrophic control failure. It now just spins out of control flashing randomly as it spins on three axis. It’s still tracked, but most believe it got fried by radiation in its higher orbit.

The total human and financial analysis was done for each satellite, and you could see the cost breakdown per satellite and per line item of the cost components.

The system used little “sims” or simulated entities to represent humans in air traffic, cars, trains and for anyone on critical medical equipment. It would show little hearts for individual sims with pacemakers. It simulated ongoing surgeries, including by type. It estimated bed counts in intensive care units on life-support at every hospital in the US. Then anyone on oxygen or a respirator outside of a hospital too.

At any given time, the simulation would have roughly sixty thousand people up in-the-air, plus or minus twenty thousand. There were roughly eight million simulated individuals that used an electronic device to regulate their heart rate.

The non-human financial cost was much less interesting to look at. That part only looked at major infrastructure. Electronic equipment didn’t move nearly as much as the tiny sims. The financial analysis was just a picture map of how much the stuff on that square pixel would cost if they broke. Most of it, at this point were AI chips, which were likely inflated assets anyhow. The system just had to sum everything on the image based on where the EMP would be at any moment to find the cost.

The simulation ran around the clock. It wasn't one of those boring jobs where you had to hit run and wait for the results.

So, if it all ran by itself, what did they need you for?

You spent the first few days learning the system and how to modify the code behind it in a sandbox. Then Kristof would give new simulated data feeds to integrate. You'd have to add the data source, then spot check the financial calculations were being done correctly. And then program the visuals to display the new data. It was all fairly easy once you did one because most of the feeds were similar.

There were a couple of statistical functions that would detect anomalies in the data on a day over day or week over week basis.

Looking at the source code of the script to connect one terminal, you worked out how to chain several terminals together as if they were one display. After a few weeks, when you realized nobody else was using the lab whatsoever, you built a jumbo-tron.

You set your own hours. You had no coworkers, no boss looking over your shoulder. The best part of the job was that you enjoyed staring at maps and watching data change. The professor found a good fit.

Your quality of life was fairly high.

You could walk to the beach at dawn, catch a few waves, take a shower, program for a few hours then head out if the waves were up. Your work schedule ended up being tightly inversely correlated to ocean wave height. When your feeds were done and you got bored flying around the country on a super computer, you'd play video games.

There were a lot of levels in the video game GoldenEye, and it had a sufficient amount of reading and puzzle to justify your interest.

The only problem for your summer was, you basically had zero dollars and zero cents to your name after the train ticket. But since all your material needs were satisfied, that wasn't really a problem for you. It would only be a problem if you made friends that wanted to "go out", so you just didn't.

Your mom still sent you twenty dollars a week, but that didn't really buy gum in 2026.

So you spent the summer reading, staring into the vastness of the Pacific Ocean, catching waves, working or just staring into the simulator.

Now, you are not an unreliable narrator. You are still very much a pacifist, but the trip, the vastness of the data displayed, your new linux and coding chops, the video game, and the fact that you were essentially setting off all the EMPs all the time, made you feel a bit drunk on power, like you were lording over the world as some kind of Bond villain in a private geostationary command center.

But, but, but… you weren't bombing anything, you were just doing the math to find out what would happen if you did. And just doing the math didn't hurt anyone.

You had started on June 2nd. The contract went until Sunday August 2nd.

The apartment was provided through August. The apartment building was always deserted as Petra.

You had stopped getting new feed integration assignments to add in the middle of July. You spent the closing weeks double checking your own work and documenting your code.

You went in for your last day with a pizza and some kombucha to watch the simulation you helped augment one last time. You had some housekeeping to put all the terminals in your jumbo-tron back to individual workstations.

You had also started to notice an interesting anomaly on the year

over year human cost around Chicago with your “lemming” sims beginning around July 30th.

Sims with pacemakers were allowed to roam anywhere in the country, or even off the board, and you noticed a sharp drop in risk around Chicago compared to the previous year.

Normally there would be about seven thousand sims with pacemakers, today there were only 4,324.

You suspected there could be a problem with the feed, but the total number of sims nationally hadn’t changed. So you go knocking on doors. You filter to show only pacemakers and then only those based in Chicagoland. The distribution had spread farther out and you start clicking their current locations, Mackinaw Island, Grand Haven, Traverse City, Madeline Island, Wisconsin Dells, Brandon Missouri–these seem like resorts. They’re all on vacation, just more so than last year apparently. And more than other cities. It must have been a good year for sims in Chicago.

Out of the corner of your left eye, you think you see a flicker. The other room five is now a room two.

Looking back to the simulator you realize, there’s no air traffic on the radar. You look at both human and financial for air traffic and it’s zero! Did all the planes near Chicago land and get diverted, or did the feed just go down?

You were looking at pacemakers.

Kosmos 2553 began to sweep in almost perfectly over the high cost central business district.

Dead. Still spinning out of control. A speck of sequin. A disco ball without a spot light.

You were looking at Kosmos 2553 as it passed over a park next to Lake Michigan when your feeds froze.

You check your internet connection:

```
ssh kristof@empart-blue.us-chi-hiput-1.clouds
...
ssh: connect to host empart-blue.us-chi-
hiput-1.clouds timeout

kristof@lab5.monterey#> ping 8.8.8.8
64 bytes from 8.8.8.8: icmp_seq=1 ttl=114
time=12ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=114
time=13ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=114
time=11ms
```

Your connection to the internet is fine.

You ping other places but only your cluster seems down.

' guess they were serious about ending on time.

It's still light out. You see some evening weather coming in. You see the tops of palm trees swaying about through the basement window.

You can put the lab back tomorrow. You're going surfing. We already knew this.

As you grab the pizza box and go to head out, you notice a sliver of light in the hallway. You follow it to see the giant bank vault door is cracked open.

Kristof was pretty adamant about not ever entering other rooms in the basement.

And you see it's now room one.

The door was on some kind of a timer.

You look in and see dim florescent lighting, but would have to push the door to see more.

Stay within the lines Jody. Don't do it.

You take your empty pizza box and head for the beach blasting Adele through your conductive headphones.

After sunset, you stare into the ocean with your bare feet on the railing of the balcony, just looking out, feeling the warm ocean breeze for an hour.

Your Sunday sanctuary is disturbed by a racket on the kitchen table.

There's a flurry of notifications on your phone. It's all crypto apps. It looks like you still had four of them installed from before the collapse in 2022.

They're all different erratic price above and below notifications (you never signed up to get) for the core currencies: BTC, ETH, SOL, & XRP.

These effing idiot crypto scammers are using the same price feed across four exchanges. What a joke.

It would be cool if one day decentralized finance were like, you know, more decentralized, as promised. It all just seems so rigged.

You don't even want to bother any more.

After checking your balances are still zero, as they have been for years, you just delete, delete, delete.

No more of that BS.

You stare into the ocean with your song on repeat.

When it crumbles

We will stand tall

Face it all together …

EMPART is done.

Monday: Red & Green

You woke up on Monday to a warm breeze sweeping up the coast through your open balcony door.

You head over to the Institute to disassemble the jumbo-tron, to take the eight terminals you had assembled into one make-shift display back into a whole computer lab.

You notice a double line of cars waiting for gas stretching along Del Monte Ave. What is going on in this country, now we have a fuel shortage? Great.

As you enter through the basement door, the hallway was as dark as always. The bank vault door was closed again.

Had someone been here to close the door?

The number next to the giant door was a two today.

You put the eight terminals back where they belong.

You try to log back into the EMPART cluster, but no luck. They must have shut it off to save cost.

You ping Kristof.

Based in Ukraine, Kristof always seemed to be online, most certainly by this hour.

‘How were they going to pay?’ you wonder.

Did they even have your address? or banking details?

You can see light coming down from the staircase. You hear muffled voices. It’s the first time you’d heard anything all summer except the cleaner once a week.

You walk upstairs for the first time.

Upstairs the wing is a very similar configuration to the basement. Instead of vault on the left and computer lab on the right; upstairs there is a fishbowl conference room on the left and a row of offices on the right.

There's three people in the conference room. You recognize some of the folks from the website. Even though you aren't starting classes for another month, you figure you'll introduce yourself.

Maybe they know something about the grant.

There is a whiteboard on the far end of the conference room. They appear to be in some kind of exercise. There's some major university initials up on the board: UCLA, NYU, MG, UoI, JH, WR, FD. Some schools you know, some of them you don't. They each have a red number and a green number next to them. All the greens appear to be zero except for WR and FD, which are at a hundred.

"Well when was the last time we *were* able to inspect VECTOR?", you overhear a slender black man at the end of the conference room ask into a phone.

A woman on the near end of the conference table writes down a number on a clipboard and finishes her call, turning her attention toward you.

"Hello, I'm Jody. I'm an incoming graduate student," you say.

"Hi Jody, I'm Sara. How'd you get in here?"

"Oh I'm the one that was running EMPART all summer. I always come in through the basement.", you say.

"Dr. Khan?", she raises her voice toward the gentleman on the phone who raises his hand, but then glances your way and stops.

"I'm sorry, one moment.", he puts his hand over the phone receiver to address you.

“Who are you and how did you get in here?”, he asked.

“I’m Jody, I was the one running EMPART this summer, since June. I used the basement door.” you say.

“Ahh that damn door. Katia!”, he says, raising his voice.

“Mac, Sara, forget what you just heard.”, Dr. Khan says, “I’m sorry Sir, I’m gonna have to call you back I have a security situation here.” as he hung up the phone.

You go to back up, but a muscular white haired woman in a pant suit is now blocking the door.

“Let’s go to my office Jody,” Dr. Khan said, “let’s figure this out.”

The three of you walk across the hall to an executive office. Katia positions an armchair in front of the desk for you to sit in. And the two of them sit on the edge of the desk above you.

Dr. Khan begins to pepper you with questions.

“You were running an EMPA simulation this summer?”, he asked.

“Yes an EMPART simulation.” you say.

“What is EMPART?” he asked.

“It’s a continuous simulation to evaluate the total human and financial cost of an EMP using simulated data feeds.”, you explain.

“It runs continuously with simulated data?”, he asks again.

“Exactly,” you confirm.

He and Katia look at each other.

“Who were you working with?”, he asked.

“Kristof”, you say.

Again, Dr. Khan and Katia exchange looks.

“Who recruited you Jody”, he asks.

“Professor Carl Sable”, you say.

“He’s a tenured professor here?”, he asked.

“… from the Vermont campus, I think he was an adjunct, I only took one course from him.” you explain.

“He had a pulse.” Dr. Khan glares.

“Do you know what happened yesterday?” he asks.

“I don’t know. I imagine lots of things. Can you be more specific?”, you offer.

“Okay, here’s what’s going to happen. You’re going to sit there. Katia is going to ask you some more questions. Katia is then going to check your answers. And then we’ll figure out what to do with you.”, he says.

Continuing, he says, “If you leave this office, I will call Monterey PD to find you and take you to the nearest FBI field office. You will likely be charged with high treason and face swift execution given what has happened and our current climate.”

“I don’t understand.” you say.

“I know Jody.” He says, “I’m sorry.” as he leaves to cross back to the conference room and draws the white vertical blinds shut blocking your view.

Katia gets a clipboard and starts firing. Date of birth, parent’s date of birth, siblings. High school, home address, friends, family. Medical history, medications, drug use. She takes your wallet. She goes through your Telegram, social media, email, call logs.

She runs you through the chain of events on Sunday evening. She wants to know everything you saw on the jumbo-tron. Again and

again and again.

She doesn't seem to care about the vault door.

She goes outside, and stares at you from the hallway, checking what you've told her with a series of phone calls.

After about an hour. She summons Dr. Khan to come back in and says, "wait a minute."

With the three of you in the room, she gives her reports:

"There is no record of a Carl Sable teaching at the campus in Vermont. Your transcripts list the course as being taught by a Scott Johnson, who they admit went on a last minute sabbatical, but they have no record of who taught in his place. Nobody ever filled out paperwork. There is no Carl Sable fitting your description that lives in Vermont.", Katia pauses.

"The apartment building is owned by a local realtor. They said that flat was rented by an off-shore corporate entity located in the Seychelles."

"I already knew this, but wanted to double check given new information. Kristof returned home to fight for Ukraine in 2022. He was captured in March of 2023. He died in captivity in May of 2023. His body was returned showing signs of torture.", Katia swallowed.

"He would never talk." Khan said. "Not Kristof."

"His children were two of the lucky few to return in the last week April 2023.", Katia said.

"Welp. It's not like they got anything. It was their satellite."

"That's what can't I figure out." Katia said.

"Given what this little country mouse has told us. It seems there was a group that knew an attack was imminent, from hacking Russian intelligence. But then chose to mitigate for loss of life instead of stopping it.", Katia explained.

“Anonymous?” Khan asked.

“… put out a statement condemning the attack, the use of nuclear weapons in space and disavowing any advance knowledge”, Katia said.

“Who else?”

“Well, we could speculate all day. It could have been any of the four eyes, NATO, Japan, China, Israel, even India is fairly good at hacking now. But given the way the United States has been conducting itself on the international stage, it might be easier to make a list of entities that didn’t want to fry US financial markets into the stone age.” Katia explained.

“What about she who shall not be named?” Khan asked.

“I don’t think Jody would have come upstairs looking for a check if that was the case.” Katia said.

“I guess that’s true.” Khan said.

They both turn to look at you.

Khan says, “What the hell are we going to do with this albatross now? Faque!”

“There is an old sailor’s trick, but the lore says it’s very bad luck.” Katia grins.

“We could outsource the job to local security forces.” Khan says.

“They’re getting hungry by now. It’s almost time.” Katia said.

“Do you know what happened yesterday, Jody?”, Khan asks again.

“Yes.” you say solemnly.

“Given what has occurred, even if you weren’t privy to it, we can’t really let you go. Nor can we really turn you in given what we’re currently working on.” Khan explained.

“You seem too dangerously naive and green to be alive, and yet here you are in the colosseum death pit with the scariest monsters known to man.”, Khan paused.

“You’re a little country mouse Jody. But you’ve made it this far. So you’re going to meet some new monsters. We’ll either solve our albatross problem or you will have made a friend.” he said.

“I don’t understand.” you say.

“You’re going to go let my dogs out.” he said. “And feed them.”

“My family fled apartheid South Africa when I was three. My mother liked these big dogs; they made her feel safe. I unfortunately inherited one of these beasts from her. He’s going to be your first test Jody.” Khan said.

“This is my address,” he said handing you a note.

“Do you know how to get there without GPS?”,

“It’s a few blocks from here”, you say.

“Good. You’re going to be navigating a lot without GPS.”, he muttered.

“This is the protocol,” he says, “You look in the mail slot. There will be another dog barking before you reach the door, that’s Flash, he’s harmless. But Thor will come to the mail slot to snarl, growl and snap at you.”, he paused.

“Do you like dogs Jody?”, he asked.

“Normally?”, you asked.

He said, “Are you left-handed or right-handed Jody?”

“Left.”

“Okay,” he says, “give me your right hand.”

He takes a small bottle from behind his desk and puts a spritz of

a red oily substance on your hand. It smells fruity and floral.

“That’s the passcode.” Khan says. “If you ever try this without the passcode, no more hand. If you use the wrong hand…”

He pauses to ensure you grasp the implication, then continues, “So you put your right hand all the way in the mail slot. You leave it there while Thor growls and snaps at it. When it’s clear he has decided he’s not going to eat your hand, you open the front door and try with the whole enchilada.”

“Thor will come out to inspect you. He’ll give you a woof and a growl or two. If he doesn’t think you are a threat, he’ll go check the perimeter and do his afternoon business. Don’t move until he has finished his assessment. When they come back in, you put two scoops of food in the large bowl and slide it into the room off the kitchen. Thor will go in, lock the door behind him. Flash gets half a scoop. Wait until Flash is done eating to release Thor, or you’ll have a dog fight on your hands. Don’t try to break up a dog fight.” he finished. “That’s the protocol.”

“Okay. Then what?”, you ask.

“Then you bring us back food.”, Dr. Khan said.

“Given what you told us about EMPART. It’s probably best if your phone stays here off in a Faraday box, right?”, Katia confirmed.

“That’s probably good.” you say.

Dr. Khan’s modest compound was ringed by a pueblo wall with an iron gate to a front walkway. As soon as you open the gate you hear Flash’s excited howling. You walk across terra cotta pavers toward the front door with a large “BEWARE OF DOG” sign. As you touch the mail slot flap you hear Thor’s deep throaty growl. Wow that’s scary. You look in to see black demon eyes and massive fangs and chomping jowls. By all appearances, he seems very angry. He’s actively growling and biting at you.

‘Here goes’, you say.

And you give up your right hand as an offering, moistened with a few close test chomps, then given a through inspection of five sniffs. Satisfied Thor steps back to announce your arrival with a couple sharp barks. You follow the protocols for feeding and proceed to find Flash's best spots as Thor finishes his dinner from inside the locked room.

You pick up the dinner order on your way back to the institute. You're a little nervous about being mistaken as a delivery person, but They aren't out tonight.

When you arrive back at the Institute, you're greeted with cheers.

"Yo, Greenland is back! Yay Greenland!" Mac yells.

"What happened?" you ask.

"Well Vermont, while you were gone, Danish intelligence services announced they had obtained advance knowledge of yesterday's EMP attack over the midwest as part of their own intelligence gathering. They took credit for running a year long clandestine harm mitigation operation with the objective of minimizing loss of life.", Katia said. "Which is why air traffic was warned and so many people at high risk had decided to go out of town."

"But how did they make all those people go on vacation?", you ask.

"Oh come on Jody." Sara says, "A special offer, targeted ad, flier in the mail. It's fairly easy to manipulate behavior on an individual level, especially when most people carry a computer with push notifications enabled in their pocket."

You spread out the takeout on a table under a big screen TV near the entrance of the conference room opposite the white board.

"We got you an eggplant parm Jody", Sara said. "We didn't know if you were a vegetarian."

"Thank You!" you say as your turn to face the whiteboard.

The whiteboard is now full of short codes. You recognize the codes from EMPART. They are not colleges, they're hospitals.

There's a black hole in the middle of their map stretching from Des Moines to Cleveland. Quite an EMP.

You look up to Vermont: UVM, RR, DH, with 5, 2, and 10 percent red respectively–and all 0 greens.

Your stomach drops.

'Mom', you think with a jolt of panic.

"What do the numbers mean?" you ask.

"No no no, Jody don't look at that.", Mac says.

Katia, Sara and Mac all look to Dr. Khan.

"The kid's going to find out eventually.", he says, "might as well bring 'em in now."

"Jody. Jody look at me." Sara says.

"Jody, there has been a strong uptick in reports of a group of people presenting in emergency rooms with severe abdominal pain. They are being diagnosed with meningococcemia or severe acute leukemia. But we don't know what the illness is.", Sara explained.

"What does the CDC say?", you ask.

"The CDC dismantled their early detection programs last year. But it appears there was a series of major terrorist attacks on the United States that dispersed a pathogen to a large number of people at multiple sites over a period of at least a week." Katia said.

"This happened last night?" you ask.

"The cases we're seeing today would have been exposed about two weeks ago; undetected the attacks could have continued up

until yesterday. They may still be ongoing." Mac said.

Shouldn't we have known about it two weeks ago?", you ask.

"There had been a program called *BioWatch* which had continuously monitored for airborne pathogens in thirty jurisdictions around the US since 2003, but it was quietly shutdown in October of 2025. The entire office to counter weapons of mass destruction was shuttered. Active monitoring for airborne pathogens was placed under the Cybersecurity and Infrastructure Security Agency, but CISA had most of their staff furloughed and never got a confirmed Director." Katia said.

"What is the pathogen?", you ask.

"We are not speculating on a specific pathogen." Dr. Khan said firmly. "We are waiting for confirmed tests from the CDC, they will make a positive identification."

"The CDC shutdown their consultation and testing facilities for pox viruses in late March of this year." Katia added.

You look down at the conference table to see it littered with copies of a paper titled: *The 1971 Smallpox Epidemic in Aralsk, Kazakhstan, and the Soviet Biological Warfare Program* and a paper titled *Smallpox as a Biological Weapon*. There's a book titled *Smallpox - The Death of a Disease* with a bunch of flags sticking out of the end chapters. There's a couple papers on anthrax, but that stack is still in the center of the table untouched.

"What do the red and green numbers mean?", you ask Dr. Khan.

"The red is the fraction of healthcare professionals that have been exposed to these cases of unknown illness; the green is the fraction of healthcare professionals that have been vaccinated for smallpox in the last five years." Dr. Khan, winced and turned his head awaiting the next question.

"Why are all the greens zero?" you ask.

Katia interjected, "Because the United States stopped vaccinating for smallpox in 1972, and all modern attempts to vaccinate

healthcare professionals for smallpox were sabotaged."

"We're not speculating Katia!", Dr. Khan said sternly.

"Okay." Katia said.

"The US national defense strategy for a smallpox-like terrorist attack has been to maintain a stockpile of vaccines for rapid distribution in the event of an attack.", Dr. Khan said.

"As long as healthcare professionals are vaccinated within three to four days of exposure, they should be fine." he added.

"Where are the vaccines?" you ask.

"The vaccines are being held in the Strategic National Stockpile pending a confirmed positive test from the CDC." Dr. Khan said.

Silence fell over the room.

"Can I help you with your map?" you ask.

"We would be good Jody; that would help a lot." Dr. Khan said.

You go into the basement and grab a few dumb terminals to cobble together a workstation. You find a dataset of every major hospital in North America and you put on some gospel music through your headphones to enter the whiteboard of data.

I will stand for you,

will you stand for me,

everybody deserves to be free.

You open a terminal:

```
sudo apt-get update; sudo apt-get install qgis;
```

You open another terminal:

```
mkdir monterey-tracking;
cd monterey-tracking;
```

```
git init;
touch na-hospitals.csv;
git add na-hospitals.csv;
localc na-hospitals.csv;
```

You enter a column of zeros for green immunization status, fixing Fort Derick and Walter Reed to 100%.

You then begin entering the red percentages off the board into a column dated August 3rd, one hospital at a time.

Tuesday: TV Off

You had finished entering all of the data from Monday around midnight.

You were exhausted and decided to just go back to your beach front apartment, which had apparently been provided to you by Denmark's Defense Intelligence Service (DDIS). You figured, if the Danes were as smart as they seemed, it should be fine. Right? And indeed, there were no SWAT teams waiting at the beach. The shell company in the Seychelles had kept its secret.

Leaving the next morning was a little thrilling too. And as you walked out the lobby at seven in the morning, there weren't hundreds of FBI agents waiting with guns drawn to apprehend you. Just people jogging and biking to work.

Given a first pass, the team at the institute had decided to refine the data collection program. They had selected noon of each day as the sampling point. They wanted counts of exposed staff and running counts of total staff. The plan was to start calling hospitals on the East Coast around 9AM local time, starting with those who had reported zero cases the day prior, and working up by size, giving larger hospital systems more time to tabulate their counts.

As the low person on the totem pole, you took breakfast orders and went to collect them.

When you got back, everyone was in Dr. Khan's office on a conference call. You tried to go in, but the door was locked. You went back across the hall to the conference room instead.

The speaker volume was high enough you were able to make out three very distinct voices on the other end of the phone. One voice seemed angry, the second was somewhat timid or fry, and

the third voice was the most garbled tortured thing you'd ever heard.

Dr. Khan was the only one speaking from our side. The conversation began to get more and more heated as time when on.

"Well they at least need to be moving at this point. To be in position in time." he yelled.

"That's not your purview. They are not your vaccines. It is OUR stockpile. And I'd remind you that you are an immigrant speaking to a US government official." the angry voice said.

"I'm a full naturalized citizen of the United States of America." Dr. Khan shot back.

"I'm not hearing that you are. You need to fix your tone." the angry voice said.

The tenor of the call became subdued and ended abruptly thereafter. It seemed Dr. Khan felt there was little more to be said.

You looked over and saw a lot of emotion on the faces of Sara and Mac. It was a mix of anger, disgust, fear and confusion. But between Dr. Khan and Katia, you did not see anger or fear. Dr. Khan merely stood up when the call ended and ushered everyone out of his office. He then closed the blinds and his office door.

Katia left.

Sara and Mac started working the phones, but they weren't calling hospitals directly today.

Since nobody needed to physically be in the conference room to collect data, Sara and Mac had begun outsourcing data collection to graduate students on break across the country. With your map, each took a slice based roughly on latitude. They were able to distribute the task of calling individual hospitals to many people and then correlate the results in batches.

The data collection was also expanding to every major hospital systematically. By eleven local time, two hours after noon on the East Coast, the evolving system had near total coverage in the Eastern Daylight timezone, and you were catching up on Central Time. You assumed, given the population distribution of the United States, that the team would probably catch up completely in the mountain time zone and wrap up the West Coast around two thirty in the afternoon, which is about what happened.

By three in the afternoon, you all were done and double checking the data. With enough time for a late lunch.

The phone rang. It was Katia for you.

She gave you a small errand.

You went into an office adjacent Dr. Khan's and took a key fob from an art glass bowl. You went into the basement and found Dr. Khan listening in on a phone call in the bank vault room. You pointed at the closet, he nodded, and you opened it to find four metal roll on suitcases, three black and one white. You rolled the three black suitcases out of the basement door toward the parking lot.

You hit the pinwheel on the key fob and saw the four ways on a large white sedan flash. You put the three suitcases in the trunk before going to get sandwiches for everyone.

You arranged the soup and sandwiches on the console under the television.

You picked up a paper entitled *Smallpox as a Biological Weapon* by D.A. Henderson and read the second paragraph of the introduction,

> If used as a biological weapon, smallpox represents a serious threat to civilian populations because of its case-fatality rate of 30% or more among unvaccinated persons and the absence of specific therapy. Although smallpox has long been feared as the most

> devastating of all infectious diseases, its potential for devastation today is far greater than at any previous time. Routine vaccination throughout the United States ceased more than 25 years go. In a now highly susceptible, mobile population, smallpox would be able to spread widely and rapidly throughout this country and the world.

Geeze, that sounds pretty bad.

You flipped to the next page, to see the guidelines were first drafted in 1998. Since a lot more time has passed, our remaining immunity must be even lower now.

You flipped to the Summary,

> … Unfortunately, the threat of an aerosol release of smallpox is real and the potential for a catastrophic scenario is great unless effective control measures can quickly be brought to bear.

You flip to a section titled Post exposure Infection Control,

> Vaccination administered within 4 days of first exposure has been shown to offer some protection against acquiring infection and significant protection against a fatal outcome.

You look at Sara and ask, “So if this is what we can’t say it is, and nurses don’t get vaccinated within four days, is there like a treatment?”

“There are about two million doses of treatment, but it’s somewhat unclear how effective it will be, given that we’ve never used it.”, Sara said.

“They need vaccines.” Sara punctuated.

“Is it really 30% fatal without a vaccine?” you ask.

Sara paused for a long moment.

“That guide was written for a attack involving classical smallpox. That was the worst possible threat we suspected when that paper was written. We learned the Soviets had a bioweapons program producing metric tons of virus after the Soviet Union collapsed, but we didn’t get a glimpse of the virus they were producing could be until 2002.” Sara said.

She continued, “There are many people who say that Doctor Henderson saved the world from the scourge of smallpox by leading the global effort to eradicate it. There’s a smaller set of people who say Dr. Henderson saved the world from smallpox twice, by creating a stockpile of vaccines as a deterrent against a bioweapon attack. The truth may be, Dr. Henderson likely saved the world twice, but the virus his vaccine stockpile stopped wasn’t smallpox. It was something a bit worse.”

“What was the other virus?” you ask.

“Now is not the time for speculation.” Sara said.

Dr. Khan burst upstairs with a cry: “Okay, in or out!”

“I’ve got us four jump seats on a GlobeMaster leaving Travis at nineteen hundred. Sara? Mac? are you in?”

“Like ALL IN? Are we actually doing this?” Mac asked.

“All in, it’s now or never.” Dr. Khan said.

“I’ve got to be in.” Mac said.

“Sara?” Dr. Khan asked,

“From all enemies foreign and domestic,” Sara said, “I’m all in.”

“Jody! Jody we need you to stay here and hold down the fort. Answer the phone, keep collecting the data.” Dr. Khan said.

“Where’s Katia?” Dr. Khan asked.

“What time is departure?” Katia asked.

“The wheels on the bus go up at nineteen hundred with or without us.” Dr. Khan said.

“My car is out front, your bags are in it.”, Katia said.

The five of you moved toward the front entrance as Katia gave the travel itinerary.

“I’ve got Monterey County Sheriff to escort us up Highway One and a CHIP waiting as a pace car up the 101. We’ve got three hundred miles of range, it’s a hundred and fifty miles to get there. It should be two and a half hours without traffic, but it’s 4:15 now which means we’ll have to make it up if we hit anything.” Katia said.

“Are you coming Katia?” Dr. Khan asked.

“I go away from evil Sir. Travis Air Force Base is as far as I can take you.” Katia said.

“JODY!” Sara yelled as you all cleared the lobby.

“Go to the store and buy N95 masks and hand sanitizer. Do you like vaccines Jody?” Sara asked.

“Yes” you say.

“Take whatever vaccine is available. Wear a mask in crowded places at night. Avoid large gatherings. Avoid capture at all cost and stay THE FUCK AWAY from all hospitals and clinics.” Sara said as she held open the door of the sedan.

The light bar on the Monterey County Sheriff cruiser spun up as Sara ducked into the sedan.

“Where are you going? Are you coming back?” you asked.

“We’re going to get your mom a vaccine or we aren’t coming back.” Dr. Khan said.

“Feed my dogs!”, He added.

“Katia will watch over you.” Sara said as you heard her seat belt click and watched Katia flash a peace sign at the police cruiser lurching forward blasting an erratic siren.

The motor of the cruiser roared, the electric motors of the white sedan whirred.

And they were off.

You made your way back inside the institute to take your place at the foot of the conference table.

Data collection was done for the day, and there weren’t going to be any more errands.

You looked at the papers strewn about.

There was a copy of a microbiology journal from 2003. You saw a bound booklet about a 1971 outbreak of smallpox in Aralsk, Kazakhstan. You begin to flip through it.

There was a map.

You saw a dotted line on the map tracing the voyage of the Lev Burg, July-August, 1971. Twenty stops in the Aral Sea around “rebirth island” to collect fish and seaweed samples, to survey the ecological impact of a major river diversion for irrigation.

‘All epidemics should only take place on boats’, you think to yourself. *They’d be so much easier to analyze that way.*

But the official reports from the time were full of many scenarios where Patient 1 in the outbreak contracted the disease off the boat or from someone who had gone ashore.

But when interviewed in 2002, the report from the institute said:

> Patient 1 insists that she did not disembark from the *Lev Berg* at any of the ports of call along its route. … Patient 1 noted that official policy allowed only the male members of the crew to leave the ship, and that this rule was strictly

enforced.

Why were there so many scenarios in the official report claiming the index patient disembarked, or purchased items at markets, or was infected by a fellow crew member, but when interviewed decades later, she said she never got off the boat and no one else on the boat got sick?

Why would official contemporaneous reports try to muddle or confuse something so simple?

Your stomach growled.

‘The monsters must be hungry by now’ you thought to yourself.

You put the paper back on the conference table and headed over to feed Dr. Khan’s dogs. They seemed to be warming slightly to you each time you fed them. Thor’s act was still fairly scary each time, but you were getting less afraid of his show.

Wednesday: Flowers

On Wednesday morning, you still weren't exactly sure what your new job was, or who was paying you, but you went back to the institute to compile statistics on the number of healthcare professionals exposed to a novel virus sweeping the country.

You stopped to feed Dr. Khan's dogs on the way in.

No word from Dr. Khan, Mac and Sara. They must be where they were going by now. You saw Katia's white car parked near the Institute, but she was nowhere in sight.

You began the process of consolidating merge requests for Wednesday's data for the East Coast around nine o'clock from a distributed group of volunteers.

It was just Jody alone in the conference room.

You begin to make the acquaintance of your various new colleagues by their chat handles and avatars.

You looked at the little tripod conference phone while waiting for data to come in. The conference phone had an 802 number. *That's funny.*

You had brought a three bean salad from your refrigerator at home. No need to do food runs if it's just you today.

You took a break around four o'clock PM to feed Thor and Flash.

By five o'clock, you were merging your second complete day of individual count data on a national level, which gave you one step in a differential rate of change.

On Tuesday, the number of exposed healthcare professionals nationally had been about 538. By Wednesday, the count was

1585. That was a bit scary for a rate of change, basically three-fold in a day. However, there were millions of healthcare professionals nationally, so you comforted yourself knowing only a very small fraction had been exposed, so far. But you knew too much about exponential growth to take much comfort in the magnitude of current counts.

You didn't need to plot or do much interpretation to see vaccination rates. Only five hospitals seemed to have gotten the memo and begun deploying available vaccine stockpiles: one near Baltimore, one in Boston, a New York City hospital, San Francisco, and a hospital near Atlanta. They were able to cover those that had been exposed, but they had stopped short of vaccinating their entire staff. Presumably, they were already rationing their current vaccine stocks.

> Even the most conservative epidemiological models suggest that ring vaccination alone, after an attack of this magnitude, would be totally inadequate to contain the subsequent outbreak.

The fragment of a commentary from a USAMRIID epidemiologist echoed from the nightmares of your bedtime reading.

You plotted the data on a national map and began flying around looking for anomalies of cases per capita.

The most obvious feature that presented itself regarding exposed healthcare professionals per capita was that certain locations with higher exposure had also hosted major events in the previous weeks.

In those population centers, the fraction of healthcare workers exposed was already approaching fifty percent. More rural healthcare systems were seeing far fewer cases. Major urban hospital systems were seeing a fair number of cases per capita.

You were looking at your map and trying to spoon the last beans from the clear plastic clamshell when someone walked by the conference room.

You looked up to see a large black man dressed in a uniform had passed by in the hall. He doubled back and poked his head in the conference room to say:

“Is this nonproliferation?, Is this the center for the uh let me see here.”

“Yes. You’re in the right spot.” you say.

“I’ve got two envelopes here for a Dr. Khan at nonproliferation.”, he said.

You see from his uniform the delivery business is called Carl the Courier with a cartoon caterpillar holding a parcel.

This second *Carl* is setting off your warning bells.

“Carl?” you ask.

“Ha, no. My name is Francis. Carl the Courier was just the name of the business when I bought it.”, he said.

“See” he says pointing to the embroidered *Francis* on his uniform.

“So you bought the courier business from Carl?”, you ask.

“Nah, I bought it from a guy named Jose, He bought it from a guy named Scott. There may have been a Carl in the 90’s, but we just liked the name.” Francis explained.

“Anyway, I’ve got two envelopes here.” he says as he hands you a large white envelope addressed to the center. The return address in the upper left hand corner simply reads:

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Alliance of
Like-minded
Independent
Cryptocurrency
Experts
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There is no other return address. There are no post-markings or machine labels. The paper felt thick and soft.

He hands you a clipboard with an empty manifest to sign for the first envelope.

As soon as you sign he reaches in his bag to pull out a black coin envelope the size of a credit card. Inside is what feels like a heavy metal card with plastic protectors on either side.

“Do you know what a wallet is? Like for cryptocurrency?” he asks.

“I think I did that once. Like the twelve words?”, you say.

“Exactly” he said.

You sign for the black envelope too.

“What’s your name kid?”, he asks.

“Jody” you say.

Francis types your name into his phone and snaps a picture of the completed manifest with the conference room in the background. You hear a whoosh as a message leaves his phone.

Francis takes out a large vape and takes a drag. You and Francis wait awkwardly in silence for a moment.

You listen closer; it isn’t silence.

Francis isn’t setting off your alarm bells. There are literal car alarms going off all around the institute. You hear a kid screaming and someone frantically whistling.

“Were we just in an earthquake Francis?” you ask.

“Don’t think so.” he says, “I get USGS alerts on my smart watch.”

You hear an 8-bit video game coin sound effect emanate from Francis’ phone.

“Alright kid. I’m out.” Francis says as he turns to leave.

Francis walks into the hallway but then slowly walks backward

into the conference room with his hands raised.

The conference phone starts ringing. You go to answer, but there is no time.

From the main entrance, a loud male voice yells “CLEAR!”.

You turn your head to see a canister knock it’s way down the hallway. You close your eyes and try to protect your head with your arms as the flash bang explodes.

Federal storm troopers marked as *POLICE* fill every room in the wing, pointing military-style rifles and yelling contradictory orders.

“DOWN ON THE GROUND; HANDS UP! HANDS BEHIND YOUR BACK; GET BACK! ON YOUR KNEES!”

You just sit stunned at the conference table, too scared to move.

They get Francis pinned on the ground zip-tied calling him the N-word as they try to scan his face while also holding him to the ground with a knee in his back.

“You can’t say that word.” you say, but you’re knocked in the forehead with the butt of a rifle in rebuttal.

“Scan whatever that is quick before it swells or you’ll never get a green.” you hear one of them say.

You get zip-tied and maneuvered up by your shoulder so they can scan your face.

[BOOP]

“Red letter. No good.” the storm trooper mutters through a mask.

“Chin up kid. Try it again.” says the commanding officer.

He presses the palm of his hand into your temple to momentarily reduce the swelling like a boxing coach.

You open your eyes as much as possible and lift your head up.

[BEEP]

“Green. Lucky day kid.”, he says as he drops your shoulder.

The storm troopers leave you zip-tied on the floor at the end of the conference table as they begin rolling in demolition waste bins and clearing the contents of every room on the wing.

Papers, books, journals, electronics, personal effects, you can hear as every desk and filing cabinet is popped and drilled open. Every single piece of electronic equipment is put in a steel bin and carted toward the curb where you can hear the screeching of garbage trucks consuming the contents of the institute.

You see the boots of someone clearing the conference table. All the papers, the phone, your workstation. The white envelope Francis just delivered gets knocked on the floor, but is quickly slam dunked into the bin. Everything goes in a demolition bin, everything but the dumb smart TV mounted to the wall.

“Maybe we red scan that freak now”, you hear a storm trooper joke.

You look around to notice that underneath the conference table is like a little safe room. The table is made of two solid vertical supports running most of the length. The table is like a giant double T-beam.

Avoid capture at all costs. you hear Sara say.

You crawl underneath the conference table toward the middle, but just before you reach the halfway point, the floor gives out and you tumble forward off a trap-door head first.

You summersault forward and downward until your head is caught in someone’s arms. The rest of your body keeps tumbling over and your feet land on a firm mat.

“Are you okay Jody”, you hear a familiar voice.

It’s Katia.

“I think so. I’m just a bit concussed.” you say.

You see the trap door close above you and latch. You hear a piercing screech as your ears pop from a sudden increase in air pressure.

You see a lone white carry-on suitcase in a nook.

“Am I in the vault?” you ask.

“You’re in a fallout shelter Jody.” Katia says, “You are safe here. The room goes into a safe room scenario when that entrance is used. There is no way for anyone to get in here now.”

You begin to examine the room as your eyes adjusted to the dim lighting.

You see a shower head and an open drain on the floor. You recognize an eye wash station.

“May I?” you ask and point with your elbow.

“Of course, that’s what it’s for.” Katia says as she motions toward your wrists with a pair of diagonal cutters.

She cuts you loose, and you rinse the chemicals from the flash bang from your eyes and face. The eyewash station solution doesn’t rinse off concussion.

Katia shines a flashlight in your eyes, which doesn’t fix concussion either.

You both watch on dull green monitors as the storm troopers ransack the institute.

They take Francis, they take the security guard.

You watch as the storm troopers leave the front door of the institute open with every door and lock broken. The only limiting factor to the raid was the rate the hydraulic jaws of

dump trucks could chew through the contents of the demolition bins.

“What was in the envelope Jody? Who was it for and who was it from?”, Katia asked.

“It was for Dr. Khan. From some kind of alliance. I didn’t open it.” You say.

“That was fast, but also too late.” Katia said.

The two of you watch on a monitor as they clear the contents of the computer lab and basement storage rooms.

You wait nervously as they examine the door of the fallout shelter.

“Listen to me Jody.” Katia said.

“There are things I need to tell you”, she says, “I need you to repeat after me.”

“Specification, infection, selection.” Katia said.

“What?” you say, still a bit tumbled.

Katia tries again: “Repeat after me, Specification, infection, selection.”

“Specification, infection, selection.” you say.

“Good.” Katia says.

“There is a field of white flowers, but every fiftieth flower is red.”, Katia says.

“I don’t understand”, you say.

“Shhh!”

“There is a field of white flowers, but one of every fifty flowers is red.”, she repeats.

“You take the red flower. You say: ‘this is the one, but more’; that is your specification.”

“You pick all the red flowers, and you burn the field. Then you sow only red flowers. When your flowers grow, you harvest the seeds of the red ones and burn the rest again. You repeat this process until only red flowers grow.”

“Finally, when you take your seeds, and compare them with seeds in the wild, you have a measure of what you did to nature. Anyone can see what you did with the earth and the magnitude of your actions. They can count the seasons and what you did to the soil.” Katia says.

She pauses briefly,

“Do you understand what I’ve said.” Katia asks.

“It’s possible to accentuate a naturally occurring specimen through a process of husbandry and selection.” you stammer.

“Good.” Katia says.

She then continued.

“I’m not from Ukraine Jody. I was born there, but I am from somewhere much farther east.”

“My mother was a doctor. She was educated at a time when it was very common for women to be doctors, and equals with men. She was very brilliant. She was caring.”

“But she was too smart, too proud, and too caring to be in the place where she was born.”

“She deduced, as part of her work, that there seemed to be a place where people were sent where no one ever returned. She asked too many questions about that place, so the authorities eventually told her that if she was truly interested in finding the answers to her questions, she must go. And they would arranged for her passage.”

“The place was like a prison, or a camp, but with a despicable unspeakable purpose. It had many different configurations. There were cells outside and inside. Large groups of cells and individual cells placed at varying distances.”

“The place was profoundly isolated by geography. It was only accessible by rail.”

“They put her in that prison. They raped her. They mocked her for questioning. They mocked her empathy. They said she could be reborn as a cure for empathy.”

“They put her in various cells adjacent the sick until she became infected. She knew no one could be allowed to leave that place alive, so she pretended to be dead after the sixth day of being sick. They took samples from her and threw her in a pit.”

“Her body was scarred by the disease and the lime they threw in the pits. She was partially blinded. But she made it back to the train tracks and covered herself in dirt to wait. She caught that train and she hid under the train.”

“When the train reached the end of the line, she hid herself on the longest train she knew would be going in the other direction from its markings. When that second train finally stopped, she asked a stranger to take her to a couple who wanted a child but had been unable to have one. The stranger took her to a farm. That is where I was born. Those were the parents that raised me.”

“What happened to your mother?” you ask,

“My mother knew her scars and her entire body was evidence. Her body was evidence that an international treaty had been broken. It was evidence of the intent to commit the worst crime against humanity possible. She knew if the authorities ever found her, with her scars, and the fact that she had now given birth, it would eventually lead them to me, and they would kill us both.”

“She told my adopted mother her story. She wrote down the red and white flowers in a letter for my eighteenth birthday. She

instructed me to always flee from evil and keep the secret of the weapon alive."

"With my adopted father's help, she had all the evidence of the existence of the weapon she carried through her body destroyed forever. Only the secret she passed to me remained."

"I'm so sorry." you say.

"Jody. There is no science fiction. There was nothing invented. There was no splicing, no editing, or cross-breeding, no new genetic design techniques. The weapon was made through specification, infection and selection. The weapon was made by rejecting humanity, and embracing death and secrecy. Do you understand?"

"I think so." you say.

"I have to leave this place tonight Jody." Katia said. "I'm telling you the secret so you can understand who you are fighting and how to stop them."

"Alice will be coming back." Katia said.

"Who is Alice?" You ask,

"The Alliance wants something from you Jody." She said. "They know you are here, you signed for Dr. Khan. The alliance wants something; they will not stop."

"But their courier was captured. He was probably taken to a detention center, which is probably not good given the circumstances." you say.

"They'll send someone else." Katia said.

"Are they good people? Should I work for them?", you ask.

"If the Alliance is looking to enlist the aid of a country mouse to fight the scariest monsters in the world, you probably don't want to know what the world will look like if you don't try to help them." Katia said.

You and Katia look at the security feed on the old cathode ray tube monitors as the last bin of material from the institute is tipped into the yawning jaws of a garbage truck.

“Do you think we will be seeing red flowers or white flowers?” you ask Katia.

“We won’t really know what we’re looking at for another week. There are many other things they could have done too.” Katia said.

“Why are they doing this?” you asked. “Why are they attacking us?”

“Do you know the parable of the frog and the scorpion?” Katia asked.

“That’s the one where the frog agrees to carry the scorpion across the stream, but the scorpion stings the frog midway and they both drown?” you ask.

“What was the moral of the story? Who had the moral failing?” Katia asked.

“Well the scorpion killed them both, but his retort is that he’s a scorpion.” you offer.

“So where did the real problem lie?” Katia asked.

“The frog didn’t understand the scorpion. The frog was incapable of empathizing with the scorpion.” you say.

“Right now, on the institute’s own website, (if the server was not in a bin) it says the attack currently underway is unlikely because the virus would spread back to the country that launched the attack.” Katia said.

“The institute says the scorpion won’t sting us because it would die too.” you summarize.

“We failed to have empathy with our enemies.” Katia bullets the point.

There was no more action on the feeds. Just empty rooms and offices. A few scattered papers. There was no sound except the hum of the cathode ray tubes and the ballast of the overhead florescent lights.

“How bad will it be if Dr. Khan’s plan fails?” you ask.

“Without vaccines, assuming the virus becomes more contagious but the fatality rate drops back toward a common strain, that would be a twenty to thirty percent fatality event.” Katia says.

“For the whole country?” you ask.

Katia sighs. “For the world, several billion people. But that’s not going to be the end.”

“Someday soon (or perhaps it has already happened) near the frontlines of the war in my home countries, there will be a young soldier tasked to paint the silhouette of a group of running school children on a tank to see if it will stop an AI-enabled drone targeting system. And on the other side of the frontline, a technician will get a tap on the shoulder to rerun an AI training model without an exclusion set and redeploy an over-the-air update to all active drones.” Katia said.

“The war they are fighting, and the weapons they are building are not confined by geography. They are coming for us next.” She said.

“What if we could stop the war.” you ask.

“It’s quicker and easier to eat your young.” Katia retorts.

Thursday: Terminus

They say you're not supposed to sleep with a concussion, but invariably everyone has to sleep sometime. Katia said it was a slight concussion.

There were a couple of cots and some blankets in the fallout shelter.

You woke up on Thursday morning alone in the dimly lit room. There was no sunlight. You had no idea what time it was.

You found a light switch and the indirect fluorescent lights gave you some bearings.

On a desk was a laptop and a note:

> I saved this for you Jody. You can't save the world with a laptop, but it certainly can't hurt. If you need wheels, the title is in the glove box. Good Luck, Katia

Next to the laptop was a plastic bag with various items you were well acquainted with from the last pandemic: masks, sanitizer, gloves, etcetera—just provided without explanation.

There were copies of the papers that had been on the conference table too. You recognized the key fob to Katia's car on top.

You wanted to stay in the vault all day, but you knew Thor and Flash would be waiting for breakfast. So you made your way out of the basement and headed over to Dr. Khan's house.

You saw a van for Monterey County Animal Control pulling away as you approached Dr. Khan's home.

The front gate was open, the front door was open too. You could

see where Thor and Flash had met the storm troopers. There was black plastic and some biohazard tape haphazardly littered about.

The clean out crew had been here too. You could see the markings of the casters for their bins had scored patterns in blood into the house and out to the curb as they cleared the contents of Dr. Khan's home. They had taken papers, electronics and personal effects. Shelves were bare and his home office was now empty.

Whatever Dr. Khan, Mac and Sara had tried to do, it didn't seem like it was going well. Or at least, it didn't seem like they were doing it in secret anymore.

You had lost your guardian; you had lost your four-legged friends. And you were slowly coming to the realization that three of the people who recruited you weren't doing good either.

You were back to square one. And the only reason you were still alive was because you were small.

You walked on the grass out of Dr. Khan's compound and then headed back toward the institute.

At "work" (whatever the informal job you had been doing was) things had deteriorated rapidly overnight as well.

You had been using a personal account on a public code repository to manage the data, but your account had been suspended overnight without explanation. You began the process of appeal. There were a number of people who had forked your data repository, all their accounts were suspended too.

You could still pull your data down to your fresh laptop, but the account block made it so no one else could view your work. You couldn't collaborate publicly like that anymore.

In the group chat, the tone had sharply deteriorated twelve hours ago. There were resignations being posted in comments from about nine o'clock last night onward.

There were a number of graduate students that had resigned or no-showed without explanation. About half had resigned citing online harassment or targeted personal threats. Of the hard cases that stayed, they noted a significant amount of friction getting any hospital administrator to speak to them or give official counts.

Beyond obvious threats and sabotage, some of the hospital systems with the highest exposure rates from Wednesday were no longer answering the phones for anyone, period.

It seemed like every facet of your data tracking project was disintegrating as you touched it on Thursday.

What had seemed like a seamless turnkey open collaboration the day prior was now a chilling series of ghostings, dropped lines and dead ends.

By the time five o'clock rolled around, you were looking at a forty percent reporting rate instead of the nearly hundred percent coverage from the day prior. It appeared many of the hospitals that did report counts were smaller rural systems that simply hadn't been threatened to keep quiet, yet.

Of the epicenter cities, only a few hospitals in New York City kept reporting.

Despite a sixty percent drop in hospitals reporting, the total count of exposed healthcare professionals went up. There were now over 2,400 healthcare professionals exposed. Roughly extrapolating, that would put complete totals at over six thousand nationally. That would be a roughly four-fold increase from the day prior, but you had lost a lot of data sources. Given the size and distribution of hospitals that stopped reporting, you feared the truth could be even worse.

How could you be the only one seeing this?

You turned around and found a remote cabled to an anchor point on the console under the TV. You turned the TV on and skipped around with sources and channels until you found a few national

news programs.

The news programs were all talking about something controversial a high profile person had said on social media. They were covering protests against occupation and messages leaders were posting to social media in support (or against) some violence or protests.

There was nothing on the television about hospitals or cases of a novel disease. There was nothing in online news sources. There was nothing on social media. You checked international news sources, but most of them had scaled back to reporting on protests or legal processes from afar when their reporters were targeted earlier in the year.

If you published counts of exposed healthcare professionals again for Thursday (somehow, somewhere new) the remaining hospitals still reporting would be targeted overnight and more would refuse to report by tomorrow.

Your remaining data collection collaborators would be targeted again overnight too. Without new recruits, you were likely going to have fewer helpers tomorrow… with harder work to do. There were people you didn't know that had joined the group chat yesterday. You didn't understand why people who weren't contributing would want to join the chat, but you understood why they were there now.

Even without threats and sabotage, you expected there to be more hospitals not taking any phone calls tomorrow.

From the trajectory of the data, there were likely a number of hospitals near epicenters approaching a one hundred percent exposure rate for healthcare professionals.

Without vaccines, those hospitals would be closed in two weeks. Without vaccines, their fate might be sealed within hours in fact. When those hospitals closed and the public panicked and fled, the two week timer on all rural hospitals would start.

Given the trajectory of what you saw, you suddenly understood

why Henderson's guidelines for the highest impact incident weren't really written with the expectation that hospitals would be treating the sick.

Henderson's guidelines had assumed care would occur in the home or in community lead isolation centers. The guidelines themselves referred to non-existent guidelines, yet to be established. He said public health officials would need to establish protocols guiding at home care of individuals or for care at places established in the community, assuming hospitals would not be effective beyond a certain scale.

There were never going to be any hospitals for the big one.

You deny your conclusion and try to bargain one more time.

If you resisted, if you defiantly published data for a fourth day, you'd be marking those reporting hospitals and your collaborators for renewed targeting, which would eventually mean violence. They'd be harassed again overnight; fewer would cooperate tomorrow. Even if hospitals held on, without vaccines, weaponized strain or not, the math of the virus was fairly inevitable.

If you kept recording the data, even if hospitals wanted to report and people wanted to help you, without vaccines, in a matter of weeks there wouldn't be anyone to answer the phone. The data would end.

You closed the laptop and moved it toward the middle of the conference table. Regardless of what you did, your data project was probably going to be over in a month. You could see the whole picture now.

You were only recording the initial trajectory of a genocide, a genocide that was long prepared for and well-organized, a genocide supported by well armed forces that did not want to be stopped. They had missed you in the first pass, but they would be back to stop you soon enough.

You understand why Khan's team flew out on Tuesday. You

understood why Katia had fled last night.

You stared at the whiteboard. You looked at the numbers Mac and Sara had drawn on Monday to record a few dozen hospitals.

Everything had deteriorated so quickly. These monsters were too big, too fast, too smart, too well prepared.

You all had lost.

There was nothing a dormouse could do to stop or even slow what was coming.

You were done.

So you did not commit your data or publish.

Instead you sat in silence in the conference room… thinking, until you heard a knock on the door frame.

“Is this nonproliferation?” a woman’s voice asked.

“Ahhh… nonproliferation is kind of over.” you said defeated.

“Are you Jody?”, the woman asked,

You turn to see a woman dressed in a work coverall holding a clipboard. You could see she had a pistol holstered under her jacket.

“Are you Alice?” you ask.

“My name is Flo. Were you waiting for Alice?” she said.

“Is that a gun?” you ask.

“I’m a licensed bonded courier. I’m licensed as a bodyguard too. It’s a legal registered firearm, Jody.” Flo said.

“Oh, well Francis didn’t …” you said.

“Francis wasn’t strapped? vaxxed? masked? Francis didn’t believe in a lot of things.” Flo said coldly in the past tense.

Flo took a folded piece of paper out of her pocket and handed it to you.

“This is message from the Alliance of Like-minded Independent Cryptocurrency Experts. Can I give it to you?” She asked.

“I guess so?” you say.

You look down to see a short cryptic message. It didn’t really make sense.

“What does this mean?” you ask.

“It’s a website Jody. It’s a URL. It’s a publicly accessible webpage open to the world, anyone can view it with a computer or phone. You type it into an address bar of a browser.” Flo explains.

“May I take a picture of your hand holding the message Jody? As proof of delivery?”, Flo asks.

“I guess so.” you say.

She snaps a picture narrowly cropped on your hand and the message. And then flashes you the picture before sending it off.

“I assume Francis gave you a wallet with some seed money. Did you manage to keep that Jody?” Flo asked.

“We got attacked right after Francis made his delivery. They took everything.”

Flo looked down at the carpet of the conference room and took a few steps back before walking forward to pick something up off the floor.

She dropped the black card envelope from the Alliance on the conference table and pointed to it.

“Did you lose that Jody? The Alliance isn’t going to waste time on you if you can’t keep track of twelve words. You need to keep that like it’s valuable.” Flo said.

“Why do they want me to go to a website?” you ask.

“It’s a job Jody. It’s a job they think you can accomplish.” Flo said.

“Why would I work for a bunch of crypto bros?” you say,

“This is America. People can work for money Jody.” she says.

“But is crypto worth anything?” you ask.

“Do you know what a treasury market is? Or what is happening right now to your money? Do you even have any money Jody?” Flo asked.

“No. I don’t know. And I guess I don’t really have any money to lose I suppose.” you say.

“Do you work for Alice?” You ask.

“Well yes and no. Alice is not the Alliance. The Alliance works for Alice.” Flo explains.

“I don’t understand, is Alice like the head boss? Who is Alice?” You ask.

Flo chuckled, “Yeah, in a way, Alice is the boss of all the crypto nerds.”

“Alice is an idea.”, Flo said.

“Alice is the idea of a user that cryptographers, developers and gamers have been writing software for for fifty years. Alice represents a person that wants to do hard things. Alice is up against bad people that don’t want her to get what she wants. Alice needs software and cryptography to accomplish her goals safely. People who understand what Alice wants work for her; they try to build what she will need.”

Flo continues,

“Alice could be a girl or boy. Alice could be old or young. Alice

is legion; Alice is everyone and no one."

"Alice is like a princess in a castle we are trying to free with a flash light and morse code."

"We are trying to free Alice with safe general computing."

"Alice is a metaphor for all humanity, for all who strive for knowledge, connection and freedom."

"So the Alliance of like-minded indy crypto nerds work for Alice, yes, which is a way to say they work for everyone and no one." Flo says.

"I sometimes work for the Alliance, but I'm almost always working for Alice." Flo finishes.

"Why does the Alliance want to hire me?" you ask.

"I don't know exactly, but what good is a currency for the world if everyone in it is dead or a slave?" Flo asked.

"Given what is happening, most individual members of The Alliance will survive just fine, they'll probably thrive in fact. They can shield themselves and their families atomically. But the Alliance needs Alice to survive, and Alice needs a community. And how to defend a community or a town in real life is outside the scope of what the Alliance normally does or can do quickly." Flo explains.

"Having glanced at the job description, it seems the Alliance wants someone, or some group of people, to write protocols that communities can use to protect themselves in the face of what is coming. Protocols that can be adapted and owned at a grassroots level. They'd be rules that need to adapt faster and be more localized than a global monetary protocol. Some rules need to be immutable and other parts need to be flexible." Flo said.

"I don't think I can do that alone." you say.

"You won't Jody, Ministers are meeting in Japan, Korea and China. Europe is unifying in Brussels. In Africa, a message from

Athens is being disseminated into hundreds of languages. The King is scheduled to address his commonwealth on Sunday."

"We have been fighting this virus, this weapon, this war, for thousands of years. Many individuals have stood against it far more alone than you feel, with much much less at their disposal. We have won before and we will prevail again."

Flo's explanation is punctuated by the ring of a coin sound effect being flung into the air from her phone.

"Well Jody. It was nice to meet you. I'm not sure what the Alliance is doing betting so much on you, but they know a thing or two about math and long bets, so…" Flo trailed off as she walked toward the door.

"Good night and good luck Jody." she said, and was gone.

You open your laptop and fire off a message in the group chat.

You explain the current status of the tracking project and why you're stepping back. You make some recommendations if volunteers want to continue the project in a more secure fashion, and recommend some folks you know Mac and Sara trusted to lead in your place.

It was 5:56PM.

You stare at the whiteboard again to decompress and second guess your decision.

You were pondering in silence when an national alert went off on your phone.

The alert directed you to a live broadcast for an important message.

You turned the television back on.

The screen was full of brightly colored graphic AI slop, the kind you saw on classmates tictok feeds. This crap couldn't possibly be it. And yet, those cheap graphics were on every channel.

On national broadcast television, you saw fake AI generated videos of the President doing various things: holding a trained bald eagle, driving a huge truck through crowds of zombies, directing troops into battle. It was a big flashy opening spread with flags and fireworks. It was like a graphics package that might be produced for a major sporting event, but it was all AI generated—poorly.

The voice over sounded like the leader, but you could tell from the vocabulary and cadence when they had words read by the "Dear Leader" AI.

"On Sunday August second, our great nation suffered a horrendous terrorist attack, the likes of which few people could imagine. The nuke was not just an attack on the great city of Chicago, but was part of a deep state conspiracy to overthrow the government of the United States. Tonight, we have assembled twenty five of the conspirators. They have been convicted of high treason against the United States."

"The traitors include eight members of my own cabinet, four senators, three congressmen, five generals and five evil fear-mongering scientists that sought to destroy our booming economy. We have gathered them here tonight to bring them to justice and carry out their sentence before the American people."

The canned music and generated voiceover stopped. The video switched abruptly to a live feed from the ballroom and a hot mic.

There was a conventionally produced professional graphic overlaid with the names and mugshots of all twenty-five people. They were all shown under the heading "PROVEN GUILTY" in red and black.

There were Dr. Khan, Mac, and Sara listed alongside a doctor from the CDC and another from USAMRIID.

The feed cut to a brightly lit outdoor stage. It was surrounded with screens saying "PROVEN GUILTY" and "TRAITORS". There's a sweeping pan of live closeups.

You hear an announcer say:

“Please rise for our national anthem.”

They couldn’t seem to find a professional singer for their last minute event. You could tell the people assembled on the stage were singing, but that feed couldn’t be heard through the broadcast.

Instead, the nation heard the confused ramblings on the hot mic. The open and stark juxtaposition between the cognitive function depicted in the state produced narrative and reality was now one of the most terrifying features of the propaganda.

“Yo say does that star spanger banner yet whale. ’n it all belongs to me, ba de ping, pa paaaa POP!”

THE END